

REMARKS / ARGUMENTS

I. General Remarks and Disposition of the Claims

Please consider the application in view of the following remarks. Applicants thank the Examiner for her careful consideration of this application, including the references that Applicants have submitted in this application and, pursuant to Manual of Patent Examining Procedure (MPEP) § 609.02, all references submitted in the applications to which this application claims priority under 35 U.S.C. § 120.

At the time of the Final Office Action, claims 7-19 were pending in this application. Claims 7-19 were rejected in the Final Office Action. Claims 7 and 14 have been amended herein. These amendments and additions are supported by the specification as filed. All the amendments are made in a good faith effort to advance the prosecution on the merits of this case. It should not be assumed that the amendments made herein were made for reasons related to patentability. Applicants respectfully request that the above amendments be entered and further request reconsideration in light of the amendments and remarks contained herein.

II. Remarks Regarding the Specification

With respect to the specification, the Office Action states:

The disclosure is objected to because of the following informalities: a phrase "*polyesters*; poly(orthoesters); aliphatic *polyesters*" in P20 of the specification as originally filed seems to be incorrect because aliphatic polyesters are also polyesters. It is recommended to change the phrase to "polyesters such as aliphatic polyesters; poly(orthoesters)" Appropriate correction is required.

Applicants disagree with this objection because, "[t]he fact that a claimed species or subgenus is encompassed by a prior art genus is not sufficient by itself to establish a prima facie case of obviousness," MPEP § 2144.08 II, Applicants believed it was appropriate to list both polyesters and aliphatic polyesters in the specification.

The Examiner respectfully disagrees with this argument. Note that polyesters are genus and aliphatic polyesters are subgenus of polyesters. For this reason, Applicants' arguments, "[t]he fact that a claimed species or subgenus is encompassed by a prior art genus is not sufficient by itself to establish a prima facie case of obviousness," is irrelevant to the Examiners' objection.

(Final Office Action at 2.) Applicants respectfully disagree with this objection. As Applicants stated in the previous response, Applicants do not believe it would be incorrect to list both “polyesters” and “aliphatic polyesters” as suitable acid-releasing degradable materials.

The MPEP specifically states that “[t]he mere fact that a compound may be embraced by more than one member of a Markush group recited in the claim does not necessarily render the scope of the claim unclear . . . [f]or example, the Markush group, ‘selected from the group consisting of amino, halogen, nitro, chloro and alkyl’ should be acceptable even though ‘halogen’ is generic to ‘chloro.’” MPEP § 2173.05(h) II. Thus, if a claim would not be rendered indefinite because of the combination of a genus and species listing in a Markush group, it must follow that a description in a patent’s specification containing a Markush grouping of that sort is proper, and therefore, not objectionable. Therefore, the mere fact that aliphatic polyesters are polyesters does not render the scope of the specification unclear. The disclosure that “suitable acid-releasing degradable materials include polyesters; poly(orthoesters); aliphatic polyesters . . .” is acceptable even though ‘polyesters’ is generic to ‘aliphatic polyesters.’ Consequently, Applicants’ description of both polyesters and aliphatic polyesters in a Markush listing is proper. Applicants respectfully request the withdrawal of this objection.

III. Remarks Regarding Rejection of Claims Under 35 U.S.C. § 103(a)

A. Claims 7-10, 12-16, and 18-19

Claims 7-10, 12-16, and 18-19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,209,643 issued to Nguyen *et al.* (hereinafter “*Nguyen*”) in view of U.S. Patent No. 6,458,867 issued to Wang *et al.* (hereinafter “*Wang*”). With respect to these rejections, the Office Action states:

Nguyen et al discloses a method of introducing treatment chemicals and treating a subterranean formation comprising providing a fluid suspension including a mixture of particulate material such as gravel packing material (See column 8, lines 20-21) in said fluid suspension, a solution of a tackifying compound in a solvent (See column 5, lines 10-13) such as **alcohol** (See column 4, lines 55-56) and a treatment chemical whereby the treatment chemical is contacted by said tackifying compound and at least partially coated therewith whereby the tackifying compound retards release of said treatment chemical in said fluid suspension; and depositing the coated particulates in the subterranean formation whereby coated treatment chemical is subsequently released within the subterranean formation (i.e. the tackifying

compound is *degradable*) to treat at the portion of formation in contact therewith (See column 12, lines 33-55). The tackifying compound includes *any* compound (See column 5, lines 11-12), e.g. a **polyamide** (See column 5, lines 21-23) or polyesters, polyethers and polycarbamates, polycarbonates, styrene-butadiene lattices, natural or synthetic resins such as shellac and the like (See column 6, lines 9-14); and the treatment chemical include biocides, corrosion inhibitors, gel breakers such as oxidizers, enzymes, etc. (See column 4, lines 40-42). The tackifying compound is admixed in an amount of 0.1-3.0 % by weight of the coated particles (See Example 1; column 9, line 65 to column 10, line 5).

The Examiner takes official notice that it is a common knowledge in the art *polyester* or *polyamide* hydrolyze either through acid or base catalysis, to a carboxylic **acid** (i.e. claimed acid releasing degradable material), as evidenced by Wang et al (See column 8, line 66 to column 9, line 12). It is the Examiner's position that the *polyamides* in a coated gravel of Nguyen et al degrades a filter cake by slowly releasing acid when formed as gravel pack next to the filter cake because the method of Nguyen et al is substantially identical to that of claimed process.

As to claimed solvent of claim 12, obviously, one of ordinary skill in the art would use a conventional alcohol such as methanol and isopropanol as a solvent in Nguyen et al because Nguyen et al does not limit their teaching to particular alcohols.

As to claims 13 and 19, plasticizers were not addressed because they are optional.

(Final Office Action at 3-4.) Applicants respectfully disagree.

In order to form a basis for a rejection under 35 U.S.C. § 103(a), a prior art reference or combination of references must teach or suggest each and every element as set forth in the claim. MPEP § 2143.03. Applicants respectfully assert that the Examiner has failed to demonstrate that the combination of *Nguyen* and *Wang* teaches or suggests each element of independent claims 7 and 14.

Applicants respectfully submit that the Examiner has failed to establish that the combination of *Nguyen* and *Wang* teaches, suggests, or discloses coating the coating solution onto a particulate or gravel *on-the-fly* to create coated particulates or gravel, as required by independent claims 7 and 14. Applicants respectfully note that in this rejection, the Examiner has not even alleged that *Nguyen* or *Wang* teach this limitation. See Office Action ¶ 7. In a previous rejection the Examiner had cited portions of *Nguyen* to allege this teaching. (See Office Action mailed on January 17, 2008 at 5-6) (the cost of resin-coated proppant is high (See

Nguyen, col. 2, lines 16-20), tackifying compounds can be in a solvent solution (See *Nguyen*, col. 5, lines 10-13), and an alcohol may be used as a solvent (See *Nguyen*, col. 5, lines 55-56)). Applicants argued in their Response dated April 17, 2008 that the facts that the cost of resin-coated proppant is high, and that tackifying compounds can be dissolved in a solvent solution, such as alcohol, are insufficient to demonstrate the *Nguyen* teaches on-the-fly coating. The Examiner has yet to refute this argument.

Therefore, because the Examiner has failed to demonstrate that the combination of *Nguyen* and *Wang* teaches, suggests, or discloses all of the elements of independent claims 7 and 14, the combination of *Nguyen* and *Wang* cannot obviate claims 7 and 14. Since “a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers,” and since claims 8-10, 12, 13, 15, 16, 18, and 19 depend, directly or indirectly, from claim 7 or 14, these dependent claims each include the limitations of claims 7 and 14 that the Examiner has failed to demonstrate that the combination of *Nguyen* and *Wang* teaches, suggests, or discloses. See 35 U.S.C. § 112 ¶ 4 (2004). Therefore, Applicants respectfully assert that claims 7-10, 12-16, 18, and 19 are allowable over the combination of *Nguyen* and *Wang* and respectfully request the withdrawal of these rejections.

B. Claims 11 and 17

Claims 11 and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Nguyen* in view of *Wang* in further view of U.S. Patent No. 6,817,414 issued to Lee *et al.* (hereinafter “*Lee*”). With respect to these rejections, the Office Action states:

As was discussed above, *Nguyen et al* teaches the tackifying compound includes *any* compound that adheres to the particles and retards release of the treatment chemical. However, *Nguyen et al* fails to teach that the tackifying compound is *polylactide*.

Lee *et al* teaches that gravel having *coating* comprising chemicals that slowly hydrolyze and release an acidic by-product (See column 3, lines 6-15), e.g. lactic polymer (**claimed polylactide**)* (See column 3, lines 20-28) can be used to degrade a filter cake (See column 2, lines 52-63).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used lactic polymer (claimed polylactide) as a tackifying compound in *Nguyen et al* with the expectation of providing the desired degradation a filter cake since Lee *et al* teach that chemicals that slowly hydrolyze and

release an acidic by-product e.g. lactic polymer, are suitable to be used to degrade a filter cake, and Nguyen et al do not limit their teaching to particular tackifying compounds. Moreover, it is held that the selection of a known material based on its suitability for its intended use supported a prima facie obviousness determination in *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945). See MPEP 2144.07.

(Final Office Action at 5.)

As discussed above in Section III (A), the Examiner has failed to demonstrate that the combination of *Nguyen* and *Wang* teaches, suggests, or discloses coating the coating solution onto a particulate or gravel *on-the-fly* to create coated particulates or gravel. Nor does the Examiner allege in this rejection that any of the cited references teach, suggest, or disclose this limitation. Nor does *Lee* teach these elements. Rather, the Examiner merely relies on *Lee*'s alleged teaching that gravel having coating comprising chemicals that slowly hydrolyze and release an acidic by-product can be used to degrade a filter cake. (See Final Office Action at 5.) Therefore, one of ordinary skill in the art would not understand from these references, either alone or in combination, to coat the coating solution onto a particulate or gravel on-the-fly to create coated particulates or gravel, as required in independent claims 7 and 14.

Thus, because the Examiner has failed to demonstrate that the combination of *Nguyen*, *Wang*, and *Lee* teaches, suggests, or discloses all elements of claims 7 and 14 the combination cannot obviate claims 7 and 14. Since "a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers," and since claims 11 and 17 depend, directly or indirectly, from claim 7 or 14, these dependent claims each include the limitations of claims 7 and 14 that the Examiner has failed to demonstrate that the combination of *Nguyen* and *Lee* teaches, suggests, or discloses. See 35 U.S.C. § 112 ¶ 4 (2004). Therefore, Applicants respectfully assert that claims 11 and 17 are allowable over the combination of *Nguyen*, *Wang*, and *Lee*, and respectfully request the withdrawal of these rejections.

IV. No Waiver

All of Applicants' arguments and amendments are without prejudice or disclaimer. Additionally, Applicants have merely discussed example distinctions from the cited references. Other distinctions may exist, and Applicants reserve the right to discuss these additional distinctions in a later Response or on Appeal, if appropriate. By not responding to

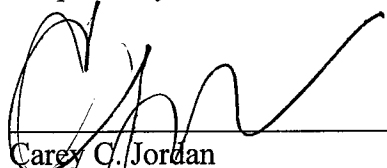
additional statements made by the Examiner, Applicants do not acquiesce to the Examiner's additional statements, such as, for example, any statements relating to what would be obvious to a person of ordinary skill in the art.

SUMMARY

In light of the above remarks, Applicants respectfully request reconsideration and withdrawal of the outstanding rejections. Applicants further submit that the application is now in condition for allowance, and earnestly solicit timely notice of the same. Because this response has been timely, Applicants respectfully request that the Examiner issue an Advisory Action if the Examiner does not find the claims to be allowable in light of the amendments and remarks made herein. Should the Examiner have any questions, comments or suggestions in furtherance of the prosecution of this application, the Examiner is invited to contact the attorney of record by telephone, facsimile, or electronic mail.

If the Commissioner deems that any fees are due, including any fees for extensions of time, the Commissioner is authorized to debit Baker Botts, L.L.P.'s Deposit Account No. 02-0383, Order Number 063718.1357, for any underpayment of fees that may be due in association with this filing.

Respectfully submitted,



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